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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,385	09/11/2003	Manfred Fuchs	P03,0324	6940
26574	7590	08/11/2005	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			VU, MINDY D	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,385

Applicant(s)

FUCHS ET AL.

Examiner

Mindy Vu

Art Unit

2878

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-7, 9-19 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 8 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/11/03 & 02/06/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/06/04 & 5/10/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS Mail Date: 10/29/04</u> . |

DETAILED ACTION

This Office Action is in response to the Applicant's application filed September 11, 2003.

Information Disclosure Statement

The information disclosure statement filed February 06, 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because US 2001/0010831 doesn't identify with the inventor and the filing date. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

The disclosure is objected to because of the following informalities:

Numbering of elements: "auxiliary layer 3" (page 6 line 6) and "storage luminophore layer 3" (page 6 line 7).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7, 10, 17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchino et al. (4,769,549).

With respect to Claim 1, Tsuchino et al. discloses a luminophore plate (for example Fig. 5a) comprising: a substrate 12; an auxiliary layer 12' disposed on said substrate, said auxiliary layer being rastered to form a plurality of alternating nubs 12ij and trenches (12ij); and a storage luminophore layer 11 applied on said auxiliary layer, said storage luminophore layer comprising luminophore needles 11ij of a storage luminophore formed on the respective nubs of said auxiliary layer by vapor deposition.

With respect to Claim 5, Tsuchino et al. discloses wherein said auxiliary layer is rastered with a grid dimension (Fig. 2d) defined by said nubs and trenches in a range between 10 and 100 μm (Col. 8 lines 61-65).

With respect to Claim 6, Tsuchino et al. discloses wherein each of said trenches has a width in range between 2 and 20 μm (Col. 8 lines 65-66).

With respect to Claim 7, Tsuchino et al. discloses the surface of the support is composed of a plastic (Col. 18 lines 1-20).

Art Unit: 2878

With respect to Claim 10, Tsuchino et al. discloses wherein said auxiliary layer is rastered by photographic etching method with a grid structure (Fig. 2d) formed by said nubs and trenches that varies over a surface of said auxiliary layer onto which said storage luminophore layer is applied (Col. 18 lines 1-20).

With respect to Claim 17, Tsuchino et al. discloses a method for manufacturing a luminophore plate comprising the steps of: disposing an auxiliary layer on a substrate, said auxiliary layer having an upper surface facing away from said substrate; rastering said upper surface of said auxiliary layer by forming a plurality of alternating nubs and trenches at said upper surface of said auxiliary layer; and applying a storage luminophore layer onto said upper surface of said auxiliary layer by vapor depositing luminophore needles of a storage luminophore on each of said nubs. See Col. 9 lines 42-64.

With respect to Claim 22, Tsuchino et al. discloses rastering said auxiliary layer by photographic etching method with grid structure that varies over said upper surface of said auxiliary layer. See Fig. 2d and Col. 18 lines 1-8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-16, 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchino et al. (4,769,549).

Tsuchino et al. discloses the nubs in different shapes (Fig. 6) and a pattern was chosen according to the photographic etching method (Col. 18 lines 1-10). Tsuchino et al. does not explicitly state that the nubs are n-sided polygons but with a predetermined pattern, they can be made in any shape. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have the shape of the nubs in n-sided polygons wherein n is between 3 and 6 for the presence of affinity.

Claims 2, 18-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchino et al. (4,769,549) in view of Vieux et al. (4,985,633).

With respect to Claims 2 and 18, Tsuchino et al. discloses a luminophore needle formed on each nub but lacks each of said nubs has a plurality of luminophore needles formed thereon. Vieux et al. discloses a parallel needles 13b formed on the nub 15 (See Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to form a plurality of needles on each of the nub for better radiation images.

With respect to Claim 19, Tsuchino et al. discloses wherein rastering said upper surface of said auxiliary layer with a grid dimension (Fig. 2d) of said nubs and trenches in a range between 10 and 100 μm (Col. 8 lines 61-65).

With respect to Claim 21, Tsuchino et al. discloses forming each of said trenches with a width in a range between 2 and 20 μm (Col. 8 lines 65-66).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchino et al. (4,769,549) in view of Wei et al. (6,414,315).

Tsuchino et al. discloses an auxiliary layer but does not state that layer is composed of parylene C. Wei et al. discloses a parylene C is used to deposit on the sides and back of the substrate by a vapor deposition process (Col. 3 lines 50-65). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use parylene C as an auxiliary layer for coating purposes.

Allowable Subject Matter

Claims 3-4, 8 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest an auxiliary layer has a thickness in a range between 20 and 100 μm , the upper surface is in a range between 20 and 50 μm , and a material having a coefficient of thermal expansion in a range between $2.5 \times 10^{-5}/^{\circ}\text{C}$ and $4.7 \times 10^{-5}/^{\circ}\text{C}$.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mindy Vu whose telephone number is 571-272-8539. The examiner can normally be reached on M-F 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mv


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